

A NEW SPECIES *GLENEA SHUTEAE* SP. NOV. FROM YUNNAN, CHINA, COMPARED WITH *GLENEA DECOLORATA* HELLER (COLEOPTERA, CERAMBYCIDAE, LAMIINAE, SAPERDINI)

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Abstract *Glenea shuteae* sp. nov. is described from Yunnan, China. Supplementary description of the genitalia of the most similar species *G. decolorata* Heller, 1926 is made. Photographs of habitus and genitalia of two sibling species are presented. The types are deposited in National Zoological Museum of China, Institute of Zoology, Chinese Academy of Sciences, Beijing, China and the Natural History Museum, London, UK.

Key words *Glenea shuteae* sp. nov., *G. decolorata*, Yunnan, China, Bangladesh.

1 Introduction

Glenea shuteae sp. nov. from Yunnan is very similar to *G. decolorata* Heller, 1926 in the pubescence pattern. At the beginning, we temporarily identified it as *G. cf. decolorata*, comparing with the unique female type specimen. Fortunately, we found some male specimens from the type locality Bangladesh in NHML and made this confusion clear. They are very different species, can be distinguished by the characters of their male claws and male genitalia.

2 Material and Methods

Materials were deposited in the following collections or museums; abbreviations as shown in the text.

CAW: Collection of Mr. Andreas Weigel, Wernburg, Germany.

IZAS: Institute of Zoology, Chinese Academy of Sciences, Beijing, China.

NHML (formally BM (NH)): The Natural History Museum, London, UK.

SNSD: Staatliche Naturhistorische Sammlungen (Museum für Tierkunde), Dresden, Germany.

Methods follow Lin, *et al.* (2009).

Glenea shuteae sp. nov. (Figs 1–6, 16)

Description. Male. Length 8.4–9.2 mm, humeral width 2.4–2.6 mm. Female. Length 9.0–10.6 mm, humeral width 2.7–3.3 mm. Body reddish brown to blackish brown, mostly covered with brown pubescence. Head brown, with brown pubescence. Antennae brown. Prothorax clothed with brown pubescence except for 6 narrow longitudinal

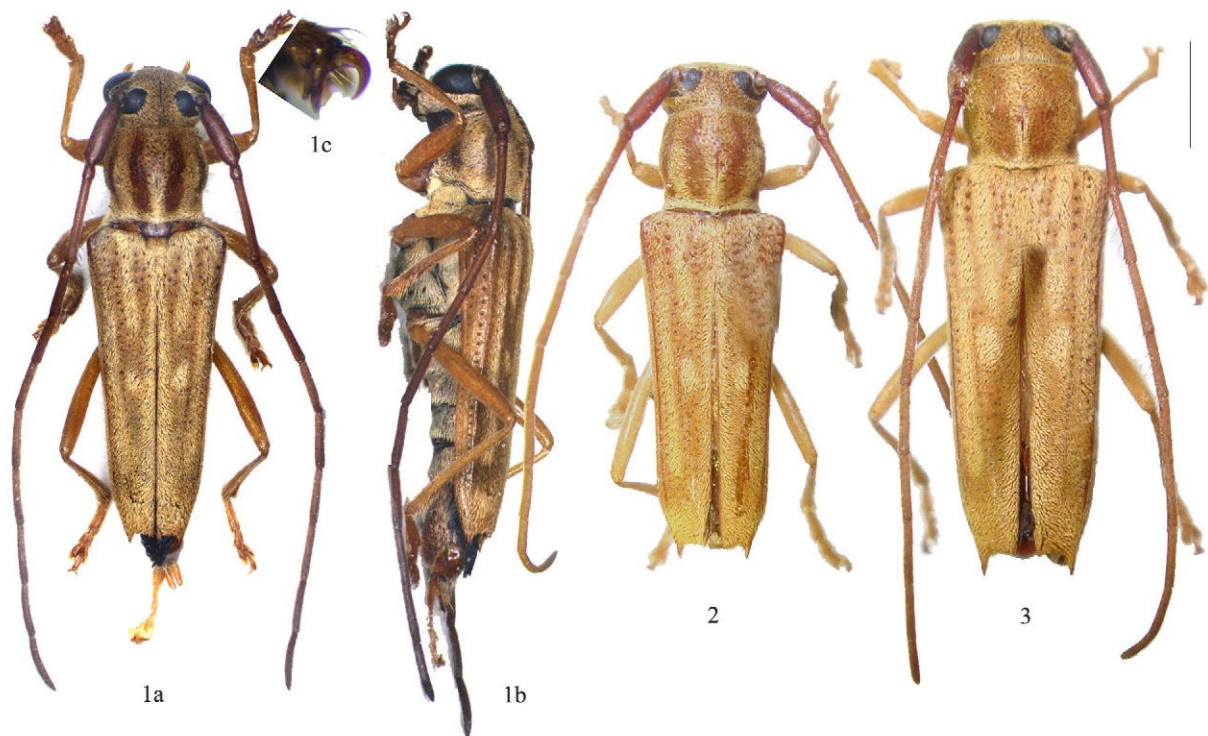
vittae; 2 on disc and 2 on each side. The vittae are close to but not reach basal and apical margins of prothorax. Scutellum pubescent. Elytra brown, each with 5 yellowish brown pubescent markings: a sutural stripe from base to apex, a short longitudinal line on the center of basal third, a median spot nearly but not confluent with the sutural stripe, a stripe near lateral margin from base to apical fifth, and a transverse apical vitta confluent with the sutural stripe. Ventral surface densely clothed with pubescence. Legs brown. Antennae longer than body; scape slightly expanded, with a ridge; last antennomere slightly expanded; antennomere ratio. Male: 11:2:16:13:12:11:11:11:11:10:11; female: 13:2:15:13:12:11:11:11:11:10:11. Prothorax almost as broad as long (male) or slightly broader than long (female), swollen at lateral sides, convex, with 1 middle ridge, somewhat densely punctured on pronotum. Elytron slightly narrower apically, with 2 humeral longitudinal ridges, truncated apically, without obvious teeth at the suture but with long and sharp teeth at the outer angle. Hind femur reaching fourth to fifth abdominal segment, first hind tarsal segment longer or subequal to following two segments combined. The anterior claws of male's three legs all appendiculate with small, sharp teeth at the outer side of base (Figs 16 and 16L1–L2). Female claws all simple (Fig. 17).

Male terminalia (Figs 4–5). Tegmen length about 2.2 mm; lateral lobes slender, each about 0.7 mm long and less than 0.2 mm wide, with ridge at the base finely haired (in ventral view), apex with fine and short setae, setae shorter than 1/3 of lateral

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Figs 1 – 3. Habitus, *Glenea shuteae* sp. nov. 1. Paratype, male, from Yunnan. 2. Holotype, male, from Yunnan. 3. Paratype, female, from Yunnan. Scale bar = 2 mm.

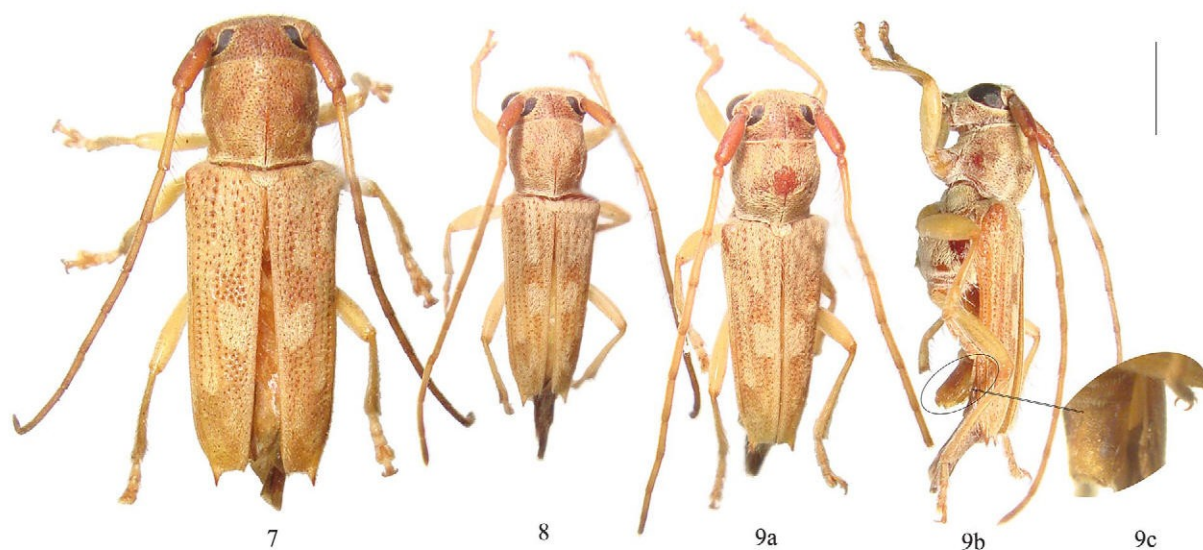


Figs 4 – 6. Genitalia of *Glenea shuteae* sp. nov. 4. Male genitalia. 5. Tergite VIII and ventrite VIII & IX. 6. Spermathecal capsule. 4a, 5a. Ventral view. 4b. Lateral view. 4c, 5c. Dorsal view. Scale bar = 1 mm.

lobes; basal piece grooved distally; median lobe plus median struts very slightly curved, slightly longer than tegmen (12:11); the median struts more than 1/2 of the whole median lobe in length (17:24); dorsal plate slightly shorter than ventral plate; apex of ventral plate narrowly pointed, with acute apex; median foramen elongated; internal sac less than 3 times as long as median lobe plus median struts, with 6 pieces of basal armature and 3 subequal rods, each about 0.9 mm long, shorter than half of tegmen. Apex of tergite VIII narrower apically, with a triangular protrusion in middle. Female terminalia (Fig. 6): spermathecal capsule composed of an apical orb and a basal stalk, stalk longer than 4 times of apical orb. Tignum longer than abdomen. In our observation, tignum 6 mm for an adult with a 4.6 mm abdomen in ventral view.

Diagnosis. Differs from *G. decolorata* in anterior claws of male (fore, mid and hind tarsi) appendiculate with small, sharp teeth at the outer side of base (Fig. 16), instead of simple claws (Fig. 17); prothorax with clear longitudinal vittae; genitalia with lateral lobes normal (Fig. 4), instead of anisomerous (Figs 13 – 14); the apex of tergite VIII more pointed (Fig. 5).

Etymology. Named after Ms. Sharon Shute (NHML), who offered series of specimens of *G. decolorata* Heller for this study and helped the authors in



Figs 7–9. Habitus, *Glenea decolorata* Heller. 7. Holotype, female, from India. 8. Male, from India. 9. Male, from India. 9a. Dorsal view. 9b. Lateral view. 9c. Lateral-ventral view, showing the simple claw and the ventrite VII. Scale bar = 2 mm.



Figs 10–15. Genitalia of *Glenea decolorata* Heller. 10. Male genitalia. 11. Tergite VIII and ventrite VIII and IX. 12. Rods of endophallus. 13. Ventral view, showing lateral lobes and apex of median lobe. 14. Lateral view, showing the finely haired small lobe at the basal part of lateral lobes. 15. Spermathecal capsule. 10a, 11a. Ventral view. 10b. Lateral view. 10c, 11c. Dorsal view. Scale bars: 10–11 = 1 mm, 12–15 = 0.5 mm.

various ways.

Remarks. Before the specimens from NHML reaching to the authors, there was only one female type specimen of *G. decolorata* available, which made it very difficult to separate *G. shuteae* from *G. decolorata*. In fact, we temporarily identified *G. shuteae* as *G. cf. decolorata* at the beginning, until having examined the male specimens of *G. decolorata* with the help of Ms. Sharon Shute.

Distribution. China, Yunnan.

Type specimens examined. Holotype male, China, Yunnan, Xishuangbanna, Xiaomengyang (22°N, 100.8°E; alt. 850 m), 14 June 1957, leg. ZANG Ling-Chao (IZAS). Paratypes: Yunnan, 2 males, Xishuangbanna, Meng'a, alt. 1 050–1 080 m, 1 June 1958, leg. PU Fu-Ji (IZAS); 1 female, Xishuangbanna, Meng'a, 1 Oct. 1958 (IZAS); 1 male, Xishuangbanna, Mengzhe, alt. 870 m, 6 July 1958, leg. WANG Shu-Yong (IZAS); 1 male, S. Yunnan, Xishuangbanna, 37 km NW. Jinghong,

Naban River Watershed National Nature Reserve (NRWNNR), Menghai County, vic. Guomenshan ($22^{\circ}17.91'N$, $100^{\circ}38.85'E$; alt. 1 000 – 1 200 m), 25 May 2008, leg. A. Weigel (IZAS, ex CAW); 3 males, Jinping, Changpotou, alt. 1 200 m, 23 May 1956, leg. HUANG Ke-Ren, etc. (2 males in IZAS, 1 male in NHML, ex IZAS).

***Glenea decolorata* Heller, 1926 (Figs 7 – 15)**

Glenea decolorata Heller, 1926: 47, pl. I, fig. 14 (Bangladesh).

Glenea (Aridoglenea) decolorata: Breuning, 1958: 873.

Supplementary description. Male. Length 6.8 – 8.2 mm, humeral width 2.1 – 2.5 mm. Female. Length 9.0 – 10.2 mm, humeral width 2.8 – 3.3 mm. Antennae longer than body; antennomere ratio. Male: 10: 1.5: 11: 10: 9: 8: 8: 7.5: 7.5: 7: 8; female: 12: 2: 13: 11: 11: 10: 10: 9: 8: 7: 8. Both male and female with simple claws (Fig. 17). Male terminalia (Figs 10 – 14): tegmen length about 1.7 mm; lateral lobes slender and anisomerous, left lobe 0.5 mm long while right lobe 0.45 mm long (in ventral view) and both about 0.1 mm wide, apex with a few very fine setae; basal piece not bifurcated distally; median lobe plus median struts slightly curved, longer than tegmen in length (20: 17); the median struts more than 1/2 of the whole median lobe in length; dorsal plate shorter than ventral plate; apex of ventral plate moderately pointed; median foramen rounded; internal sac longer than twice of whole median lobe in length, with 4 pieces of basal armature, and 3 subequal thin apical rods, each about 1.0 mm long, longer than half of tegmen. Apex of tergite VIII almost rounded, weakly projected in middle. Female terminalia (Fig. 15): spermathecal capsule composed of an apical orb and a curved basal stalk, stalk longer than twice of apical orb. Tignum longer than abdomen. In our observation, tignum 7.2 mm for an adult with a 6.6 mm abdomen in ventral view.

Remarks. Since this species with both male and female claws all simple, it could not be included in the subgenus *Aridoglenea*. According to our study on the type species *G. (Aridoglenea) arida* Thomson, the anterior claw of all the tarsi of male is appendiculate at the base, posterior claw of all the tarsi of male simple (Fig. 18); female claws simple (Fig. 17). We don't have good idea on which subgenus it should belong to at this moment.

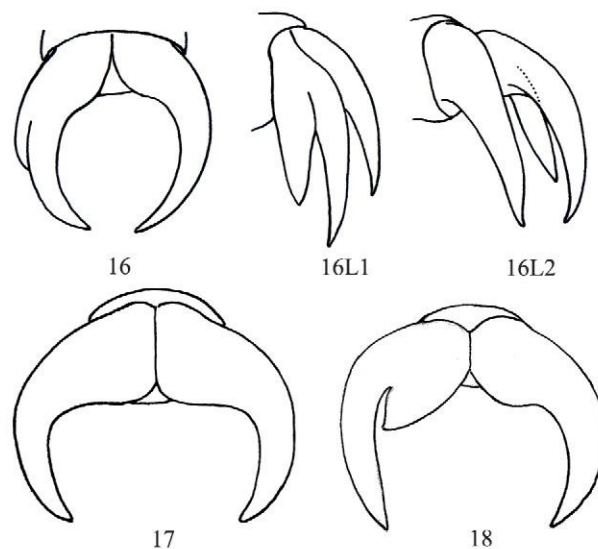
Distribution. Bangladesh.

Specimens examined.

Type specimen examined. Holotype, female, Sunderbans, Bengal. (Bangladesh), 30 Mar. 1921,

leg. Beeson, C. F. C. with label written: R. R. D, 820 / B. C. R, 162 / Cage 193 (SNSD, ex Heritiera Femes).

Other specimen examined. Bangladesh: 1 male, Sunderbans, out of Sundri, 6 May 1915, leg. C. F. C. Beeson (IZAS, ex NHML, ex For. Zool. Coll.); 1 male, same data but 4 May 1915 (NHML, ex For. Zool. Coll.); 1 male, same data but 26 May 1915 (NHML, ex For. Zool. Coll.); 1 female, same data but 22 May 1915 (NHML, ex For. Zool. Coll.); 1 male, Sunderbans Division, 20 Apr. 1915, leg. C. F. C. Beeson, with label written: Cage No. 50 / out of Sundri (NHML, ex For. Zool. Coll.).



Figs 16 – 18. Claws figures. 16. Only anterior claw appendiculate with a small but sharp tooth at the outer side. 16. In frontal view. 16L1. In lateral view. 16L2. In another side of lateral view. 17. Simple. 18. Only anterior claw appendiculate with a small tooth at the inner side.

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REFERENCES

- Breuning, S. 1956. Revision der Gattung *Glenea* Newman. *Entomologischen Arbeiten aus dem Museum G. Frey*, 7 (1): 1–199, 2 pls.
- Breuning, S. 1958. Revision der Gattung *Glenea* Newm. (Col. Ceramb.) (3. Fortsetzung und Schluß). *Entomologischen Arbeiten aus dem Museum G. Frey*, 9 (3): 804–907.
- Breuning, S. 1966. Catalogue des Lamières du Monde (Col. Céramb.). *Verlag des Museums G. Frey*, (9): 659–765.
- Gahan, C. J. 1889. Descriptions of new or little-known species of *Glenea* in the collection of the British Museum. *The Transactions of the Entomological Society of London*, (2): 213–225.
- Gahan, C. J. 1897. Notes on the longicorn genus *Glenea*, Newm., with descriptions of new species. *The Annals and Magazine of Natural History*, 19 (6): 473–493.
- Heller, K. M. 1926. Neue, altweltliche Bockkäfer. *Tijdschrift voor Entomologie, Amsterdam*, 69: 19–50, pl. 5.
- Hua, L-Z 2002. List of Chinese Insects Vol. II. Zhongshan (Sun, Y-S) University Press, Guangzhou. 612 pp.
- Lin, M-Y, Montreuil, O., Tavakilian, G. and Yang, X-K 2009. Reinstatement of the genus *Heteroglenea* Gahan, with four new combinations, four new synonyms and three new species (Coleoptera, Cerambycidae, Lamiinae, Saperdini). *Zootaxa*, 2137: 1–22, 50 figs.
- Lin, M-Y, Lin, Y-L, Li, W-Z and Yang, X-K 2009. Study on *Glenea fainanensis* species group, with one new synonym and two new status (Coleoptera, Cerambycidae, Lamiinae). *Acta Zootaxonomica Sinica*, 34 (2): 214–220, 19 figs. [动物分类学报]

云南天牛一新种淑氏并脊天牛描述 (鞘翅目, 天牛科, 沟胫天牛亚科, 楔天牛族)

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摘要 描述了中国云南省的 1 天牛新种淑氏并脊天牛 *Glenea shuteae* sp. nov.。对与之最相似的变色并脊天牛 *G. decolorata* Heller, 1926 进行了补充描述。提供了 2 个相似种的整体照片及外生殖器图片。模式标本保存在中国科学院动物研究所和英国伦敦自然历史博物馆。

淑氏并脊天牛, 新种 *Glenea shuteae* sp. nov. (图 1~6, 16)

新种淑氏并脊天牛与变色并脊天牛斑纹相似, 但可以通过以下特征区分: 雄虫 3 对足的爪均有且仅有外侧齿的外侧基部具小而尖锐的附齿 (图 16), 而不是单齿式 (图 17); 前胸背板具清晰的纵条纹; 雄性外生殖器的阳基侧突正常 (图 4), 没有不对称; 腹部第 8 背板末端更加尖突 (图 5)。

正模♂, 云南西双版纳小勐养, 海拔 850 m, 1957-06-

14, 臧令超采 (IZAS)。副模: 2 ♂♂, 西双版纳勐阿, 海拔 1050~1080 m, 1958-06-01, 蒲富基采 (IZAS); 1 ♀, 西双版纳, 勐阿, 1958-10-01 (IZAS); 1 ♂, 西双版纳勐遮, 海拔 870 m, 1958-07-06, 王书永采 (IZAS); 1 ♂, 西双版纳, 景洪市西北 37 km, 纳板河流域国家级自然保护区, 勐海县过门山 (22° 17.91' N, 100° 38.85' E; 海拔 1000~1200 m), 2008-05-25, A. Weigel 采 (IZAS ex CAW); 3 ♂♂, 云南金平长坡头, 海拔 1200 m, 1956-05-23, 黄克仁等采 (2 雄在 IZAS, 1 雄交换给 NHML)。

词源: 新种名源自英国伦敦自然历史博物馆的馆员 Sharon Shute 女士, 以其姓氏命名。

关键词 淑氏并脊天牛, 新种, 变色并脊天牛, 云南, 中国, 孟加拉国。

中图分类号 Q969.511.4

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